Difficult Decisions:
Fetal Intervention in Twin Gestation

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Disclosures

• I have no disclosures.
Case Presentation

• 36yo G4P2103 woman with monochorionic diamniotic twin gestation

• Obstetric history: gestational diabetes and pre-eclampsia in prior pregnancies; cervical shortening
  • negative for congenital abnormalities with other three children

• Family History: negative for urologic abnormalities or kidney disease
20 week ultrasound
20 week ultrasound
Fetal Management

- **Vesicocentesis** x 2 at 20w5d and 21w1d
  - Beta 2 microglobulin >20,000
  - Chromosomal FISH/microarray studies negative

- **Vesicoamniotic shunt** placed at 21w6d
Birth Events

• C-section at 30w1d due to pre-eclampsia with severe features
• Twin B was intubated for respiratory distress, anuric since birth
• Additional Exam Findings:
  • Weight: 1090 g
  • Imperforate anus
  • Sacral agenesis
  • Shunt in good position
Postnatal Renal Ultrasound
Postnatal Events

• **Day of Life 2**
  - Failure to pass 3.5Fr feeding tube through urethra
  - Diverting colostomy and mucous fistula creation

• **Day of Life 4**
  - Withdrawal of care in setting of rising creatinine and kidney failure
Challenges

- Vesicoamniotic shunt to reduce risk of pulmonary hypoplasia and further renal dysfunction in Twin B
  - Shunt increases risk of preterm labor in setting of cervical shortening
  - High risk of fetal demise of Twin B
  - Risk of morbidity to Twin A due to shared blood supply
- Inability to perform peritoneal dialysis or hemodialysis due to size of Twin B
Conclusions

• Stresses importance of:
  • multidisciplinary discussions with fetal care team for prenatal intervention
  • involvement of palliative care early postnatally to help discussions regarding intervention versus comfort care
Questions?

Thank you!

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